

Part III:

Depression and Turmoil



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The Great Depression

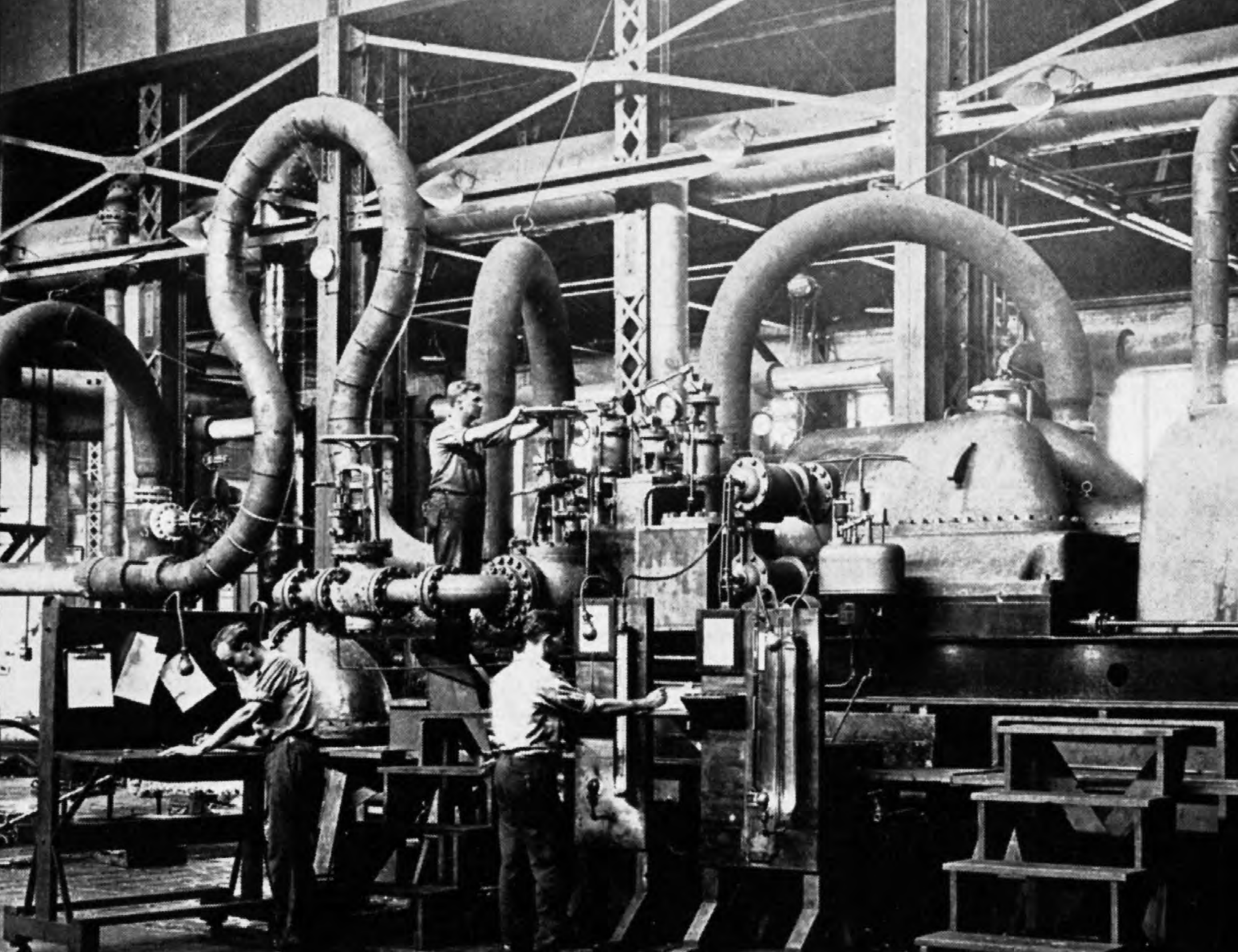
The 1920s are often called “The Roaring Twenties.” This was a decade of growth and optimism in the United States and Europe following the end of World War I. During the decade, shares increased in value across the board, reflecting a healthy economy and the wealth created by new technologies and visionary industrialists like W.S. Elliott.

Pervasive optimism in the strength of the stock market, however, fueled wild speculation by investors. On “Black Thursday” – October 24, 1929 – the price of shares on the New York Stock Exchange collapsed. Widespread panic ensued when the sell-off spread to Europe the next day. By the end of the month the Dow Jones Industrial Average had fallen 40 percent from its record high only weeks before, and U.S. investors had seen more than \$50 billion of their wealth evaporate.

The stock market crash of 1929, and the Great Depression which followed, had no precedent in U.S. economic history. Between 1929 and 1932, 13 million Americans, or 25 percent of the workforce, lost their jobs. More than two million people were homeless. One in five of America’s banks failed. Nine million savings accounts were wiped out. Industrial production fell by more than 40 percent. Gross domestic product (GDP) fell by 30 percent, and the stock market lost 90 percent of its value before it hit bottom in July 1932.

The crisis affected Elliott Company as it did every other company in the U.S., with cancelled orders, bankrupt customers, tightened credit, assets lost in failed banks, and a long, slow climb back to profitability. Elliott Company responded to the difficult situation by cutting costs and consolidating operations.

Recovery came slowly in the second half of the 1930s. The Roosevelt Administration’s “New Deal” programs resulted in massive government spending in many sectors of the economy. Late in the 1930s, as war began to engulf the world and America’s involvement became more likely, the U.S. government began heavy military spending, issuing contracts for vast quantities of war supplies. These military procurements accelerated the economic recovery and altered production priorities for Elliott Company and other American manufacturers. This new emphasis on military production would continue until World War II ended in 1945.



Financial decline at Elliott

No one at Elliott Company anticipated the Great Depression or what it would mean to the company. Income had reached a record high in 1927. Although revenues declined somewhat in 1928, the company continued to invest in the redesign of Ridgway's single-stage blowers and the steam turbine designs from Kerr and Ridgway. These investments quickly paid off. By April 1929, Elliott had booked more business than ever before in its history. Despite the stock market crash in October, W.S. Elliott was optimistic. In his 1929 annual letter to stockholders he wrote:

"The large increase in business during 1929 is most encouraging for still further expansion. During 1929 plans for extensions were developed, to be completed during 1930, which will enable your company to take care of a much larger volume of business in the future."

One year later, Mr. Elliott was more downbeat in his letter to stockholders:

"The earnings of your company for the year 1930 do not compare favorably with 1929. This is due to the business depression. Had it not been for the relatively large amount of orders carried over on the books, the earnings would have been even less satisfactory.

"We have maintained our organization during the year, hoping for an early business revival. In order to do this, it was necessary to divide up the work wherever possible, instead of dispensing with the services of many efficient and loyal employees.

"We are not prophets, and we are making no predictions as to when business is going to get back to normal, but you will be interested in learning that new inquiries continue to develop, although customers are in no haste to place orders."

Customers were in no greater hurry to place orders in 1931 than they had been in 1930. The recession worsened during the year and revenues declined 45 percent. Matters got even worse in 1932. Revenues that year were the lowest ever recorded in Elliott's history. Still, Mr. Elliott noted that, "Operating expenses were kept down in every possible way, and the organization was maintained at a high standard of efficiency and loyalty." Elliott Company was able to maintain its organization "at a high standard" in the face of mounting losses because of Mr. Elliott's foresight and prudence in setting aside reserves when the company was profitable.

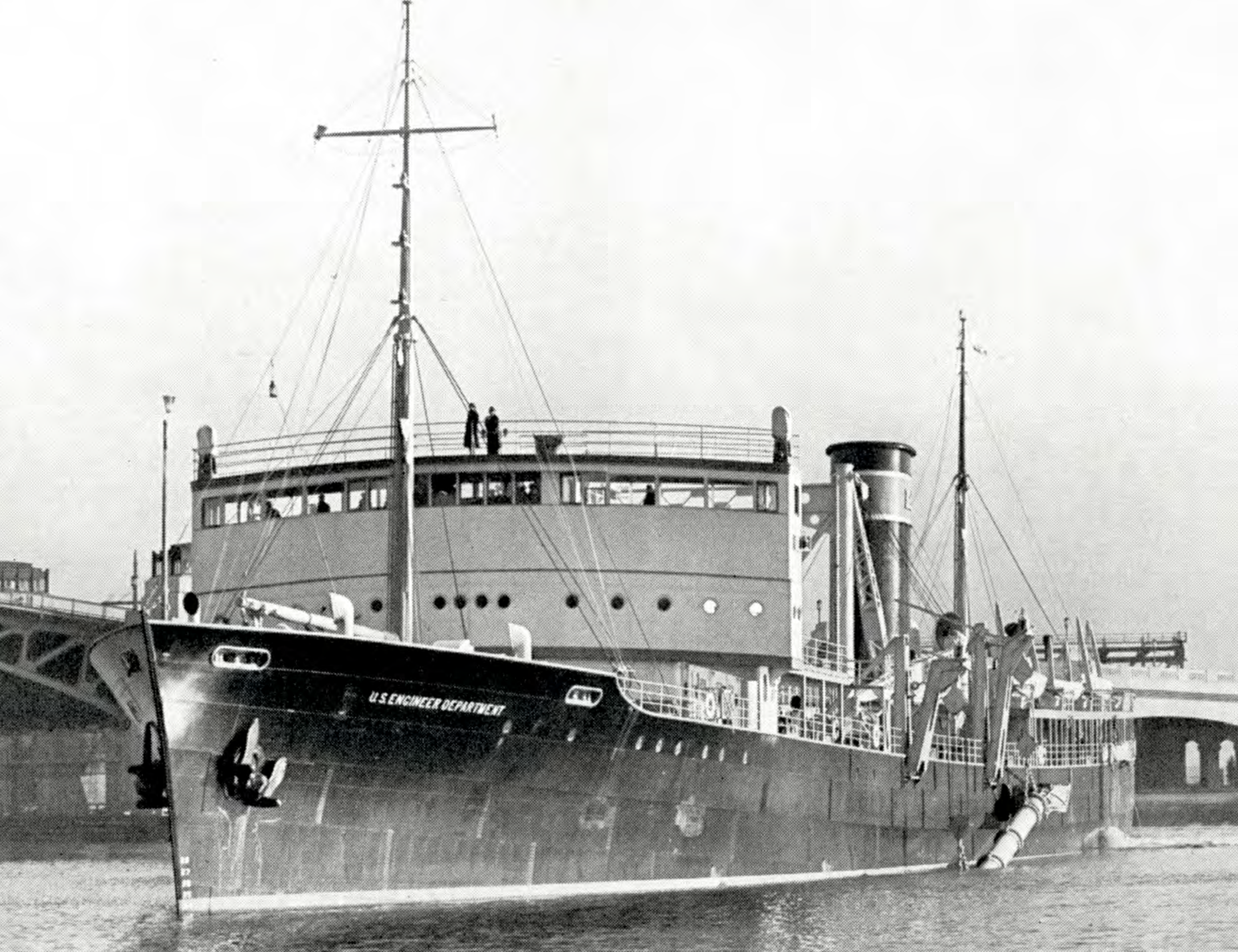
The collapse of the economy resulted in the actual, final collapse of the Kerr plant in Wellsville, NY. The property had been offered for sale in 1928 when turbine manufacturing was consolidated in Jeannette. With no buyers in sight, the expense of maintaining the facility became too burdensome, so in 1932 the buildings were wrecked.

Signs of a turnaround were still hard to find, but in his 1933 letter to shareholders, Mr. Elliott noted a glimmer of hope. "It appears that the worst of the depression is past and we are now looking forward to a slow business recovery."

This 1933 letter is also noteworthy for an action the company took to reward long-time employees. There was no mandated retirement age at that time. Social Security did not yet exist; President Roosevelt signed it into law in 1935 as part of his "New Deal." It was not common for companies to offer pensions or profit-sharing to their employees. Nonetheless, at a time when his company was losing money and every expense was carefully weighed, when Elliott Company's finances were near their lowest point, W.S. Elliott drew upon the company's reserves for the benefit of his loyal, long-serving employees:

"Some of the employees who have served your company faithfully for the best part of their lives, having reached an age that seriously handicapped them in performing their duties, the management felt that it was in the interest of your company to retire them on pension."





U.S. ENGINEER DEPARTMENT

Depression-era sales

Among the company's sales during this grim era were turbine generators for installation in municipal power plants, factories and institutions. These projects also often included Elliott condensers, ejectors and deaerators.

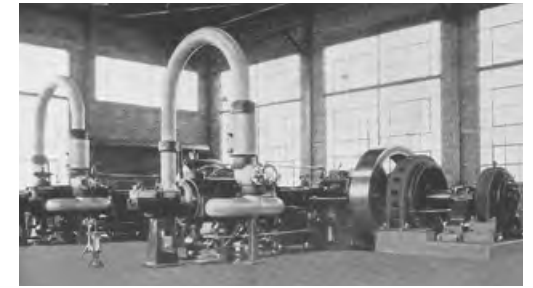
One example of an Elliott power installation was the New York Hospital-Cornell Medical College in New York City, the largest hospital in the world when it opened its doors in 1932. The hospital had its own central power plant with four large water-tube boilers for heat, electrical power, water, refrigeration and other services. The building was renowned for its architectural beauty, and the attention to detail extended into the engine room, "with floors of red Dutch tile, walls of white vitrified brick and full height cathedral windows." Housed in the engine room to produce electrical power for the hospital were three 2500 horsepower, twin-cylinder steam engines built at Elliott's Ridgway works. Each reciprocating engine drove an alternator and a DC generator on the same shaft. Several Elliott twin strainers filtered the fuel oil for the hospital's boilers, and two more Elliott twin strainers filtered the brine used in the air conditioning system. Elliott electric motors drove the hospital's water pumps and the fire pump.

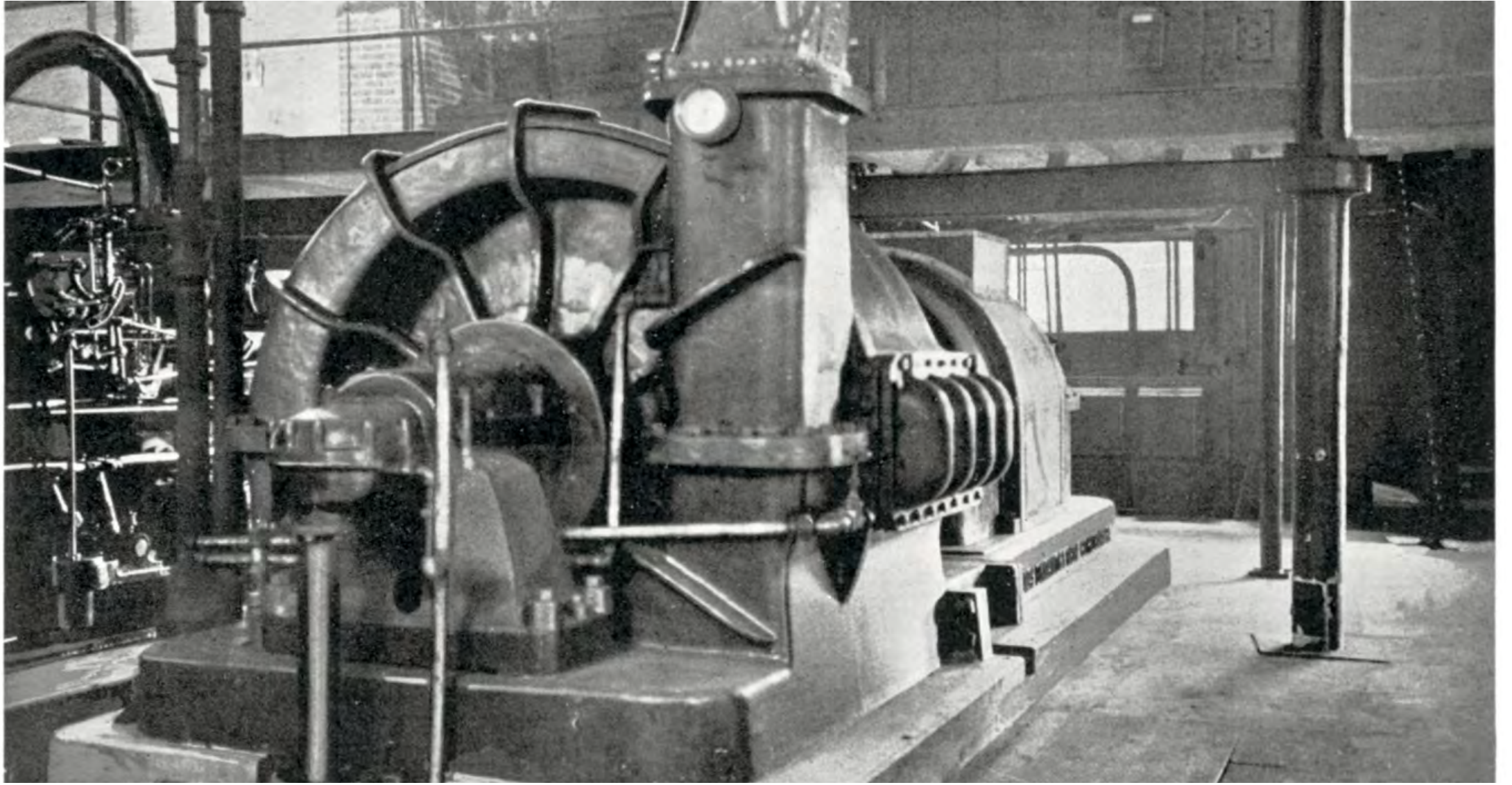
Ridgway electric motors were sold as drivers in power plants and metal rolling mills. Elliott supplied condensers, steam jet ejectors, distillation stills and tube cleaners to refineries. Also during this period, the sale of Elliott reduction gears took off. The gear manufacturing technology had come from Kerr Turbine, and gears had been built in Jeannette since 1927. Reduction gears allowed Elliott steam turbines to efficiently drive low or moderate horsepower machinery.

Elliott also sold steam turbines, generators and electric motors for dredges operating on American waterways. As dredges increased in size, compact steam turbines replaced larger, heavier reciprocating engines as machinery drivers on the vessels. Hal Storer was largely responsible for Elliott's leadership in this market. Mr. Storer had been a salesman for Kerr Turbine. During World War I he had sold a large number of steam turbines for shipboard use where their combination of power and compact size were an advantage over steam engines. After the war he recognized a similar opportunity in the U.S. government's extensive dredging program to improve rivers and harbors. Between 1920 and 1940, the government spent nearly \$1 billion on U.S. waterways. During those two decades, Elliott provided steam turbines for many of the steam-operated hydraulic dredges in the eastern United States. The turbines drove the hydraulic dredging pumps as well as the generators which powered winches and cutters.

After acquiring Ridgway, Elliott was also able to supply much of the electrical equipment required by a modern dredge, including DC generators and motors. Although alternating current was established as the electric utility standard early in the twentieth century, DC motors were still commonly used for industrial applications, as they are today. In 1936, the U.S. Army Corps of Engineers dredge "Goethals" was launched with a full complement of Elliott DC equipment, including two main and two auxiliary generators, two 2250 HP motors, two 1300 HP motors and several smaller motors.

By 1937, Elliott Company had reached a watershed. Revenues had recovered from their lowest ebb five years earlier, although still barely half of their record high in 1927. Employment totaled 1,300. An addition was made to the main office building, now Building 14. And for the first time in the history of the company, the factory employees became affiliated with a labor organization. A contract was signed in May 1937 between Elliott and the Steel Workers Organizing Committee, a division of the Committee for Industrial Organization (CIO), covering the factory workers in Jeannette. Similar contracts covering Ridgway and Springfield were signed in the autumn. In accordance with the trend in the industry, Elliott also announced a "Vacation-With-Pay Plan" for factory employees. Workers received one day for each year's service up to a total of five days for five years or more.





Product improvements

Despite the economic pressures of the depression, Elliott Company never abandoned its efforts to improve its products. The work conducted during this period resulted in innovations that enabled Elliott to quickly capitalize on market opportunities as the economy recovered.

Until the 1930s, manufactured gas, also known as coal gas or town gas, was used extensively for lighting, cooking and heating in cities throughout the United States. Manufactured gas was typically produced from coal in municipal or industrial gas works and was piped to homes and businesses. It was the primary fuel of the 'Gaslight Era,' before the arrival of widespread electrical lighting. For decades, the manufactured gas industry was a major market for Ridgway's and later Elliott's single-stage blowers. Then the general advance of electrification and the development of natural gas delivery pipelines hastened the decline of the manufactured gas business.

As this important market declined, Elliott Company recognized an opportunity in the growth of sulfuric acid production. Sulfuric acid is now one of the world's most common chemicals, used in a wide array of products and applications including dyes, pigments, fertilizer, refining, steelmaking, pharmaceuticals, and other chemicals. By 1933, Elliott had produced a compressor for handling air in a sulfuric acid plant. Elliott's blower sales subsequently expanded to include nitric acid plants and cracking applications in refineries. The chemical industry remains a market for Elliott's compressor line today.

Elliott's program to redesign Ridgway's multi-stage compressors was slowed by the depression, but Elliott used the slowdown to study the compressor requirements of the steel and chemical industries. Compressor impellers were then typically assembled with rivets. Elliott's research during the 1930s ultimately led to the introduction in 1940 of welded, closed-type impellers.





Death and management turmoil

W.S. Elliott's 1933 letter to shareholders was his last. He died suddenly of a heart attack at his home in Pittsburgh on February 21, 1935. He was 71 years old and had spent the day at work in his office.

The company published an obituary which read in part:

"It is with great sorrow that we record the death of Mr. William S. Elliott, Founder and for over thirty-four years President of your company. During this period Elliott Company, under his progressive and able leadership, grew to be a nationally known concern of highest standing. His sound judgment, uncompromising honesty, the courage to follow his convictions, and capacity for accomplishment, made him respected throughout the industry, and his associates were devoted to him.

"Mr. Elliott's life was the Elliott Company. Like many successful men, he devoted practically all of his time and energy to his business. The Company is his monument, the living witness of his mature lifetime of industry and business judgment. Starting in one room, which served as both office and factory, plant expansion was rapid and continuous. Today, three plants at Jeannette and Ridgway, Pa., and at Springfield, Ohio, and a human organization of approximately 1000 people are a tangible testimonial to his energetic activity."

Mr. Elliott's eldest son, George Frederick – "Fred" – succeeded his father as President. A 1916 graduate of the Pennsylvania State University, Fred Elliott had worked for Elliott Company during the summer months of his high school and university years. After graduating from the university, he spent time in the U.S. Army during World War I and then immediately joined the company. When Elliott acquired Ridgway Dynamo & Engine Company in 1926, he was made a vice president of Elliott and named general manager of the Ridgway Works. In 1937, Fred Elliott was elected Chairman of the Board; James E. Watson was named President. Mr. Watson had joined Elliott in 1911 immediately after graduating from Penn State. Within a few years he had become general sales manager and W.S. Elliott's right-hand man. Mr. Watson had been a board member since the mid-1920s.

W.S. Elliott's death added complexity to the ownership of the company, which led, perhaps inevitably, to management turmoil. While he was alive, Elliott Company was very much a one-man business. Following his death, his shares in the company were distributed among his family. Many of his shares were assigned to trust funds he had created for his wife, Anna, and his youngest children, twin sons named William and Gilbert. Shares also passed to Fred and to Margaret, the only daughter, second in age to Fred. Margaret was married to Louis Nohl, who served the company in financial positions after starting his career in New York banking.

Although Fred Elliott was the head officer of the company, the dilution of ownership and the influence of the Pittsburgh bank that served as trustee made his job more complicated. Many more parties now had a say in how the company was run than during his father's day. In 1937, Louis Nohl joined the board of directors.

The depression was beginning to ease when Fred Elliott took over the company, but business had by no means recovered, and Elliott Company was still losing money. To reduce expenses, the manufacture of all steam turbines and compressors was consolidated in Jeannette, leaving Ridgway to focus solely on electrical equipment. Similarly, the corporate structure was simplified. Liberty Manufacturing, Lagonda Manufacturing, Kerr Turbine, and Ridgway Dynamo and Engine Company were eliminated, leaving only Elliott Company. By 1939, business was definitely improving, and Elliott reported its first net profit in several years. Fred Elliott coped well with the challenges he faced, but on January 22, 1940 he died suddenly of pneumonia, only five years after his father's death. He was 46.



When Fred Elliott died, the President, James Watson, was solely in charge. The tensions that Fred Elliott had grappled with were even more of a challenge for Mr. Watson, who was not a member of the Elliott family. The company was struggling to manage a tremendous influx of defense business. Apparent board dissatisfaction and interference from the trustees of W.S. Elliott's stock led to Mr. Watson's resignation from the company. Another Penn State graduate and longtime Elliott manager, Lawrence M. Forncrook, became acting president until a successor could be found.

Within a month, in September 1941, Howard M. Hubbard succeeded Mr. Forncrook as President. Mr. Forncrook remained as a director until 1957. Howard Hubbard had degrees from Northeastern University and the Harvard School of Business. He had management experience with tool companies such as Bullard Machine Tool and Greenfield Tap and Die Company, where he was President and General Manager before joining Elliott Company.

Mr. Hubbard soon brought in several associates from Greenfield to help him cope with the flood of defense orders. The Greenfield group didn't blend well with the Elliott culture, and the stockholders grew impatient with the build-up of management personnel. Early in 1943, the board of directors again turned outside of the company to elect Grant B. Shipley, a respected and highly experienced industrialist, as Chairman. Mr. Hubbard resigned shortly thereafter, and most of the people he had brought with him also left.

With Howard Hubbard's departure, Grant Shipley took on the duties of President. His charge was to get Elliott Company operating again as it had for many years before. It was also apparent that Mr. Shipley would eventually turn over the presidency to W.S. Elliott's youngest son, William A. "Bill" Elliott.

